# New regulations for portable gas cans and gas can spouts

At its September 23, 1999, meeting, the California Air Resources Board (ARB) will consider new emission and spill-control regulations for portable fuel containers, commonly known as "gas cans," and gas can spouts. The proposed regulations would apply to new gas cans and spouts sold in California starting January 1, 2001. There is no requirement for owners of gas cans or spouts sold before that date to modify their gas cans or to scrap them and buy new ones.

## A major source of smog-forming pollution

While the air emissions from a single portable gas can appear to be small, the total number of such containers means they contribute significantly to smog-forming emissions in California. Based on industry and government data, it is estimated that there are 9.2 million residential gas cans and almost 600,000 commercial gas cans in California. About 1.9 million new gas cans are sold each year in the state.

These cans contribute smog-forming emissions to California's air in several ways, including:

- permeation of vapors through walls in containers made from a plastic known as high density polyethylene (seventy-five percent of residential gas cans are made from this plastic);
- escaping fumes while fuel is being dispensed;
- spillage and/or over-filling as fuel is being poured into equipment;
- spillage and evaporation through secondary vent holes; and
- evaporation through inadequately capped spouts.


*Gas cans account for about 87 tons a day of smog-forming pollution. That's equal to emissions from about 1 million cars.*

Portable gas cans account for about 87 tons per day (TPD) of smog-forming reactive organic gasses (ROG) escaping into California's air. Without the ARB's action to reduce gas can emissions, that number will grow to 96 TPD by 2010. However, adoption of the proposed regulations will mean a 73 percent reduction in ROG emissions from gas cans by 2010, cutting the amount of smog-forming emissions to 26 TPD. An added benefit to the consumer is a significant reduction in exposure to harmful fuel vapors while using portable gas cans.

## How would the new standards work?

All containers and spouts would have an automatic shut-off feature preventing overfilling of power equipment fuel tanks. Several gas can manufacturers already have products on the market with this feature. The spouts would also have an automatic closing feature so the can will be sealed when it is not being used to fill an equipment fuel tank. This feature prevents leaking vapors when the can is not in use. Again, several manufacturers already have products on the market that comply with this requirement. Secondary venting holes would be eliminated under the new standards since these openings allow venting of fumes to the air. The new standards would require manufacturers to reduce vapor permeation through a container's walls to no more than 0.4 grams per gallon per day.

## The new standards are cost-effective

ARB estimates that the average cost of a gas can, in sizes ranging from one gallon to six gallons, will increase approximately $6 to $11 per can. Looking at costs another way, the proposed regulation would cost $2.01 for each pound of smog-forming ROG reduced. This is a cost-effective amount for ROG reduction, considering the typical $5 per pound cost of recent emission control strategies to reduce smog-forming hydrocarbons and oxides of nitrogen.


*The proposed gas can regulations would prevent spills during equipment fueling and evaporation during fuel storage.*

## Needed for cleaner air

These proposed gas can and gas can spout regulations will bring the state cleaner air and help meet federally-mandated requirements to reduce harmful air emissions. Existing ARB regulations reduce smog-forming emissions from automobiles, heavy-duty trucks, watercraft engines, lawn and garden equipment, gasoline and diesel fuels, consumer products such as hair spray and auto polishes, and other equipment and products. The ARB will continue to look for other ways to reduce harmful emissions.

## For more information

Technical reports about the proposed new standards can be found on the ARB's Internet site by going to http://www.arb.ca.gov/msprog/spillcon/spillcon.htm. Copies of the technical reports may also be ordered through ARB's Public Information Office, 2020 L Street, Sacramento, CA 95814 (916) 322-2990. The ARB's ADA Coordinator can be reached at (916) 322-4505, TDD (916) 324-9531.